

Remarks

Claims 1, 3, 5, 7-11, 15-17 and 20-25 were pending of which Claims 1 and 3 are withdrawn. Claims 5, 7-11, 15-17 and 20-25 are rejected. Claims 5 and 7 have been amended. Support for the amendments may be found in the Specification as filed at least in paragraphs [0062]-[0063], [0065] and [0079]-[0080] and FIG. 4. No new matter has been added. Thus, after entry of this amendment, Claims 5, 7-11, 15-17 and 20-25 are currently pending. Reconsideration is respectfully requested based on the following remarks.

Claim Rejections 35 U.S.C. §103

Claims 5, 7-11, 15-17 and 20-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Abileah et al. (U.S. Patent No. 7,280,102), herein referred to as “Abileah,” in view of Bergquist (U.S. Patent No. 7,184,009), herein referred to as “Bergquist.”

Of the above-referenced claims, Claim 5 is independent. Accordingly, once allowability of that claim is established, all claims depending therefrom are likewise allowable.

Claim 5, as amended, recites in part “wherein the first switching device includes a gate electrode electrically connected to a gate line, a source electrode electrically connected to a data line and a drain electrode electrically connected to the pixel electrode so that a data signal is provided to the pixel electrode through the data line and the source electrode, wherein the light-sensitive switching device is a second switching device electrically connected to receive a first analog signal from the data line and is turned on in response to the incident light to output the first analog signal to a third switching device outputting the first analog signal in response to a second analog signal applied to the gate line” (emphasis

added).

In contrast, Abileah discloses, with respect to FIG. 13:

The display is illuminated in a traditional manner and the voltage imposed on the photo TFT 404 may be modified in accordance with the light incident on the photo-sensitive circuit, as previously described. In the topology illustrated, the photo TFT 404 is normally a N-type transistor which is reverse biased by setting the voltage on the common line 408 to a voltage lower than an anticipated voltage on the photo TFT 404, such as -10 or -15 volts. The data for the current frame may be stored in the frame buffer for later use. Prior to writing the data for another frame, such as the next frame, the data (e.g., voltage) on the readout TFT 410 is read out. The switch 418 changes between the new data 420 to the readout line 414 interconnected to the charge readout amplifier 412. The select line 406 is again selected to couple the remaining voltage on the photo TFT 404 through the readout TFT 410 to the data line 400. The coupled voltage (or current) to the data line 400 is provided as an input to the charge readout amplifier 412 which is compared against the corresponding data from the previous frame 422, namely, the voltage originally imposed on the photo TFT 404. The difference between the readout line 414 and the data from the previous frame 422 provides an output to the amplifier 412. (emphasis added) (Abileah, Col. 13, lines 15-42)

With respect to “a data line” of Claim 5, Claim 5 recites “wherein the first switching device includes a gate electrode electrically connected to a gate line, a source electrode electrically connected to a data line and a drain electrode electrically connected to the pixel electrode so that a data signal is provided to the pixel electrode through the data line and the source electrode” (emphasis added). Thus, viewing FIG. 13 of Abileah, the “common line 408” of Abileah is not “a data line” as recited in Claim 5. Therefore, the “-10 or -15 volts” provided by the “common line 408” of Abileah does not correspond to “a first analog signal from the data line” as recited in Claim 5.

Abileah also discloses “new data 420 provided on data line 400 may be 4.5 volts which is latched to the pixel electrode 402 and the photoTFT 404 by imposing a suitable voltage on the select line 406” (Abileah, Col. 13, lines 9-12). However, this “4.5 volts” of Abileah does not correspond to the “first analog signal” recited in Claim 5. Claim 5 recites “a second switching device electrically connected to receive a first analog signal from the data line and is turned on in response to the incident light to output the first analog signal.” (emphasis added). Thus, the “first analog signal” as recited in Claim 5 is “output” when the second switching device “is turned on in response to the incident light.” This is not the case for the “4.5 volts” of Abileah.

Furthermore, the “amplifier 412” of Abileah is does not correspond to the “second switching device” recited in Claim 5, as “amplifier 412” of Abileah is not “electrically connected to receive a first analog signal from the data line and is turned on in response to the incident light to output the first analog signal to a third switching device outputting the first analog signal in response to a second analog signal applied to the gate line” as recited in Claim 5.

Thus, Abileah does not disclose or suggest the liquid crystal display panel recited in Claim 5. Bergquist does not correct this defect.

For at least this reason, Applicants respectfully submit independent Claims 5, and all claims depending therefrom are patentable.

In particular Claim 7, as amended, recites in part “wherein the first sensor line is electrically insulated from the data line and directly connected to the third switching device.” In contrast, Abileah discloses that “a switch 418 may select between providing new data 420 to the selected pixels and reading data 414 from the selected pixels” (emphasis

added)(Abileah, Col. 13, lines 1-3). Viewing FIG. 13, the readout line 414 is not “electrically insulated from the data line and directly connected to the third switching device” as recited in Claim 7.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a).

Conclusion

In view of the remarks set forth above, it is submitted that the application is now in condition for allowance. Authorization is given to charge any fees due or credit any overpayments in regard to this communication to deposit account 50-5029. If the Examiner has any questions or concerns, a telephone call to the undersigned at (408) 331-1674 is welcomed and encouraged.

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